



# Geon™ SF M7020

## Rigid Polyvinyl Chloride

### Key Characteristics

General			
Material Status	• Commercial: Active		
Regional Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• General Purpose	• High Flow	• High Impact Resistance
Uses	• Medical Devices		
Agency Ratings	• UL 94 5VA	• UL 94 V-0	
RoHS Compliance	• RoHS Compliant		
Forms	• Pellets		
Processing Method	• Injection Molding		

### Technical Properties <sup>1</sup>

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Specific Gravity	1.33	1.33	ASTM D792
Spiral Flow	47.0 in	119 cm	
Molding Shrinkage - Flow	2.0E-3 to 5.0E-3 in/in	0.20 to 0.50 %	ASTM D955
Mechanical	Typical Value (English)	Typical Value (SI)	Test Method
Tensile Modulus <sup>2</sup>	330000 psi	2280 MPa	ASTM D638
Tensile Strength <sup>2</sup> (Yield)	6000 psi	41.4 MPa	ASTM D638
Tensile Elongation <sup>2</sup> (Break)	35 %	35 %	ASTM D638
Flexural Modulus	335000 psi	2310 MPa	ASTM D790
Flexural Strength	9100 psi	62.7 MPa	ASTM D790
Impact	Typical Value (English)	Typical Value (SI)	Test Method
Notched Izod Impact			ASTM D256A
0°F (-18°C), 0.125 in (3.18 mm), Injection Molded	2.0 ft·lb/in	110 J/m	
32°F (0°C), 0.125 in (3.18 mm), Injection Molded	5.0 ft·lb/in	270 J/m	
73°F (23°C), 0.125 in (3.18 mm), Injection Molded	12 ft·lb/in	640 J/m	
Hardness	Typical Value (English)	Typical Value (SI)	Test Method
Durometer Hardness (Shore D)	79	79	ASTM D2240
Thermal	Typical Value (English)	Typical Value (SI)	Test Method
Deflection Temperature Under Load			ASTM D648
66 psi (0.45 MPa), Unannealed, 0.125 in (3.18 mm)	153 °F	67.2 °C	
Deflection Temperature Under Load			ASTM D648
66 psi (0.45 MPa), Annealed, 0.125 in (3.18 mm)	160 °F	71.1 °C	
Deflection Temperature Under Load			ASTM D648
264 psi (1.8 MPa), Unannealed, 0.125 in (3.18 mm)	140 °F	60.0 °C	
Deflection Temperature Under Load			ASTM D648
264 psi (1.8 MPa), Annealed, 0.125 in (3.18 mm)	158 °F	70.0 °C	

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Thermal	Typical Value (English)	Typical Value (SI)	Test Method
RTI Elec	194 °F	90.0 °C	UL 746
RTI Imp	185 °F	85.0 °C	UL 746
RTI Str	194 °F	90.0 °C	UL 746
Flammability	Typical Value (English)	Typical Value (SI)	Test Method
Flame Rating (0.0709 in (1.80 mm), ALL)	V-0 5VA	V-0 5VA	UL 94
CSA Flammability <sup>3</sup> (63.0 mil (1.60 mm))	5VA	5VA	

### Processing Information

Injection	Typical Value (English)	Typical Value (SI)
Processing (Melt) Temp	390 to 410 °F	199 to 210 °C

### Notes

<sup>1</sup> Typical values are not to be construed as specifications.

<sup>2</sup> Type I, 2.0 in/min (51 mm/min)

<sup>3</sup> All Colors

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